





Welcome

Welcome to another edition of Railtalk Xtra, the monthly magazine that predominantly features railways outside the UK.

And another glorious month both in the UK and in Europe. I have just returned from another trip to Europe including a weekend in Czech where I have to say it is a diesel fans paradise at the moment with so many loco turns accessible on a Saturday and Sunday. Not only that but the people at CD Nostalgia and KZC to name a couple have blessed the enthusiasts with some really good events to visit. I cannot highly recommend enough a trip over there this year.

News from Greece this month is that open access freight venture Rail Cargo Logistics Goldair began operating its own trains on the national rail network on June 27th, when it dispatched an initial trip from the RCG terminal at Sindos near Thessaloniki to Idomeni on the border with Macedonia. The joint venture between Austria's Rail Cargo Group and Greek transport and logistics company Goldair Group was established in 2014. At present rail has just 0.3% of the freight transport market in Greece so there should be plenty of opportunities.

News from Canada is that Canadian Pacific has awarded Progress Rail a contract to modernise 30 SD90MAC locomotives to the SD70ACU specification. Major components will be remanufactured to improve performance and reliability, including the existing EMD 710

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Submissions & Contributions

Railtalk Magazine Xtra, a Magazine written by the Enthusiast for the Enthusiast. So why not join the team. We are always looking for talented Photographers and Writers to join us at Railtalk. Be it though Pictorial Submissions or via a written article featuring an event or Railtour, we greatly appreciate any contributions to the magazine however big or small.

Photographic Contributions

All Photographic contributions should be sent to us via email, post or via the members section page on our website. Contact addresses are provided to the right or on the next page.

All images ideally should be provided at a resolution of at least 2048px x 1536px at 150dpi.

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Front Cover

In Ukraine, No. ChME3-2652 stands at its destination of Vyzhnytsia after working the 09:07 local from Chernivtsi. *Tim Farmer*

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CBH Groups narrow gauge Nos. CBH007 and CBH003 head east through Midland, Western Australia with empty grain hoppers on May 15th. *Colin Gildersleve*

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SNCB Class 77 No. 7752 is seen at Mons on June 26th. *Mark Armstrong*





engines, and the locos will be fitted with new traction control systems and cabs meeting the latest standards for crashworthiness.

Meanwhile in Croatia, a contract for the modernisation and electrification of the 23.8 km Zaprešić – Zabok line which is to be incorporated into the Zagreb suburban network was signed by HŽ Infra and Swietelsky on June 12th. The maximum speed on the route is to be raised from 60 km/h to 120 km/h through infrastructure upgrading and the construction of several sections of new alignment, reducing the journey time from 44 to 28 min for stopping services and from 31 to 14 min for non-stop services.

And in Estonia state-owned freight operator EVR Cargo has been renamed Operail, in a change which the company said was 'driven by the need to better reflect the nature of an international market-oriented logistics and transport company'.

As always thanks for all the excellent photos, please keep sending them in, and remember if you are going on holiday, don't forget to take your camera.

David
Editor

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Railtalk Magazine Xtra is published by HAD-PRINT a trading name of HAD-IT LIMITED.

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With Thanks

Once again many thanks to the many people who have contributed, it really makes our task of putting this magazine together a joy when we see so many great photos.

These issues wouldn't be possible without: Ray Anslow, Mark Armstrong, Brian Battersby, Mark Bearton, Mark Bennett, Tim Blazey, Keith Chapman, Julian Churchill, Nick Clemson, Derek Elston, Mark Enderby, Tim Farmer, Dave Felton, FrontCompVids, Colin Gildersleve, Paul Godding, Richard Hargreaves, Keith Hookham, Colin Irwin, John Johnson, Anton Kendall, Jyrki Lastunen, Ken Livermore, Michael Lynam, Peter Marsden, Phil Martin,

Denzil Morgan, Thomas Niederl, Peter Norrell, Chris Perkins, Mark Pichowicz, David Pollock, Andy Pratt, Railwaymedia, Alan Rigby, Bryan Roberts, Neil Scarlett, John Sloane, Stephen Simpson, Laurence Sly, Stewart Smith, Steamsounds, Steve Stepney, Mark Torkington, Andrew Wilson and Erik de Zeeuw.















Auto trains head once again through Frydlant

Transportation of cars from the Škoda Auto production plant from Mladá Boleslav via the border crossing station Frýdlant v Čechách to Swarzędze was for years the color of the Frýdlant promenade. This year, however, these shipments were diverted to another distribution warehouse in Sosnowiec. Due to the difficulties of unloading in this warehouse, however, on June 15th -17th there was a re-direction of the autos into the original storage areas.

It was no problem for ČD Cargo because they used the route mentioned above in the past. Due to the fact that at the same time there was a continuous lock on the section Rychnov u Jablonce nad Nisou - Liberec, it was necessary to furthermore divert the trains from Bakov nad Jizerou via the line at Srní - Těždíků to Liberec.

In spite of this interplay of unfavourable events, everything was operated according to plan and to the satisfaction of all parties involved.

Photo: © CD Cargo



▶ KZC's Class 749.006 departs Praha hlavní nádraží with a service to Rakovník, just one of six potential services for Class 749 haulage departing the main station every Saturday and Sunday morning during the 2018 summer months. *Class47*



Trial loading of vehicle bodies

On June 1st a trial loading of Karoq vehicle bodies into ČD Cargo's Habbilns wagons was carried out at the Škoda Auto siding in Mladá Boleslav.

Vehicle bodies arrived on a siding of the company Preymesser in Lipovka, from where they are transported to a nearby production plant in Kvasiny.

This is a joint project of Škoda Auto and ČD Cargo for the improvement of the environment by the fact that the goods so far carried only by trucks will be partially moved to green rail transport. Transport symbolically started on the International Children's Day and now the bodies are being transported daily.

Photo: © CD Cargo



Česky Drahův Class 460.076 stands at Prerov awaiting departure time with a service for Hranice na Moravě. *Class47*



 Czechia

CD City Elefant No. 471.070 calls at Praha-Podbaba with a service to Decin. *Stearnsounds*



Prague Tatra built tram No. 8556 on the interlaced track threading the archway approaching the stop at Malostranské náměstí. *Stearnsounds*

Regio nova Class 914.060 stands at the temporary station, Praha-Bubny Vltavská. This station was built due to the massive Masarykovo viaduct rebuilding project. *Stearnsounds*

 Czechia



On June 17th, CD Cargo's Class 122.006 hauls a coal train through Vsetaty. *Paul Godding*



CD Cargo's Class 240.066 and 240.109 arrive at Havlickuv Brod with a freight on June 18th. *Paul Godding*

A smart looking Class 754.049 arrives at Vsetaty on June 17th with the Sunday Tanvald - Praha Vrsovice service. *Paul Godding*



SŽDC takes over the first serial vehicles MUV 75 from CZ LOKO

The Railway Infrastructure Administration has taken over from the Czech manufacturer of locomotives and special vehicles CZ LOKO the first series vehicles MUV 75. These are special railway vehicles which are intended for maintenance of tracks and against the previous modernized vehicles of the MUV 74.2 series it is a brand new construction. SŽDC ordered a total of 50 machines at CZ LOKO. The assembly of vehicles takes place in the Jihlava factory at a rate of 4-5 machines per month. According to the contract, the last vehicle should be handed over at the turn of 2019/2020. CZ LOKO, however, has announced more than half a year of delivery acceleration. The MUV 75 hydrostatic transmission was fully developed in CZ LOKO and complies with the latest TSI standards and standards. For the company, it is a versatile platform for a special vehicle for the next 10 years. Against the previous types, it has a longer mainframe and a larger cab with two control stations that accommodates up to 7 crew members. The platform with a capacity of 5 tons is fitted with a Palfinger crane, which is supplied with three types of grapples and cutting equipment.

“ Functional design of the front contributes significantly to better aerodynamics and a maximum speed of 75 km / h guarantees the vehicle a greater radius of action and shorter driving times to the point of intervention. Combined with the multifunctionality of the vehicle’s installation with different extensions for individual seasons, the actual need for these vehicles is sharply decreasing compared to the single-purpose and obsolete MUV 69, which is positively reflected primarily in the economy of operation of these vehicles, “ Ing. Jaroslav Plhák, Sales and Marketing Director of CZ LOKO.

The 130.4 kW CAT C4.4 is coupled with the hydrogenerator in the cabin behind the cab and the vehicle is ready for ETCS mounting. The design is also designed for use on special tracks, such as metro lines. Thanks to MUV 75 unification with the previous series of

MUV 74, SŽDC does not have to expand the range of spare parts. Optional attachments include, for example, a snowmobile, a tanker, a mobile workbench or a gravel plow. The platform can also be used for the construction of a tracksuit for the diagnosis of track geometric parameters. The production of special railway vehicles has a relatively long history in CZ LOKO, which began to be written in 2000 for the vehicle MV 20, which was the modernization of MUV 69 for Sokolovská Uhelňá. Subsequently, MUV 71 with mechanical power transmission followed MUV 73 with electric power transmission and in 2011 MUV 74 with hydrostatic transmission of power. Other special vehicles developed and manufactured by CZ LOKO include, for example, DJ NDT for detecting defectoscopic track defects, the ETCS engine for ETCS diagnostics and other special measuring, service and conference cars.

Photo: © CZ LOKO



With two Class 742’s at the rear pushing, Class 742.157 departs Mlada Boleslav on June 17th.
Paul Godding

 Czechia



CD Cargo 'Goggles' Class 753.758 and 753.779 are seen shortly after arriving at Mlada Boleslav on June 18th. *Paul Godding*



Cesky Drahy's Class 163.039 stands at Lysa nad Labem on June 17th having arrived with a terminating service from Usti nad Labem Zapad. *Paul Godding*

DB's Class 189.016 stands at Melnik on June 17th, passed by Metrans Class 386.017. *Paul Godding*



A block train from China arrived in Hamburg

On the 18th of June a train from Houma in China arrived in Hamburg. It started its 11,618 km long journey on the 31st of May. This is the first train going out of the Czech Republic, which is fully covered by the East Asia Department of ČD Cargo.

The operation of this train is the first real success of the cooperation with a new agent ČD Cargo concluded an agreement with the Transport and Logistics conference in Shanghai. The agent represents the company mainly in the provinces of Changsha, Shanxi and Sian, where it offers the services of ČD Cargo to both commercial and production companies.

Photo: © CD Cargo



AWT 'Goggles' Class 753.712 and 753.711 head through Prerov with a rake of tanks, heading towards Breclav and the Austrian border.
Class47





 France

▶ Chemins de Fer de Provence unit No. X304 arrives at Moriez with the 09:27 from St. Andre les Alpes to Digne les Bains on June 13th. *Jeff Nicholls*

▶ Chemin de Fer de Provence railcar X304 crosses a short viaduct near Moriez with the 09:27 from St. Andre les Alpes to Digne les Bains. The line parallels the N202 road. *Jeff Nicholls*

▶ Chemins de Fer de Provence DMU No. X306 stands at the Digne les Bains terminus. *Jeff Nicholls*





Stadler wins the first order in France for its innovative generation of locomotives

The rolling stock supplier Stadler, the French rail freight operator VFLI and the leasing company Alpha Trains have signed the purchase contracts for the first 12 EURO4001 diesel-electric locomotives and the prototype of the EURODUAL bi-mode locomotive. Both models are part of the new generation of six-axle locomotives developed by Stadler in Valencia for the European market. The 13 new locomotives will be used by VFLI in rail freight transport services in France and Belgium.

The French rail freight operator VFLI, a subsidiary of SNCF, has been using locomotives from Stadler since 2013 for its freight transport services, currently has a fleet of 19 EURO4000 locomotives; the last ones were delivered at the end of 2017. With these new contracts, VFLI becomes the first French customer of the new generation of Co'Co' locomotives designed and manufactured by Stadler in its Albuixech plant with the aim of optimizing rail freight transport in Europe.

The leasing company Alpha Trains has an existing fleet of 30 EURO4000 locomotives operated by different rail freight operators in Spain and Portugal. It is now expanding its business in France with the leasing of further locomotives from Stadler.

The EURODUAL is the technological response of Stadler to the challenges posed by cross-border corridors such as the Mediterranean or the Atlantic Corridors. Iñigo Parra, CEO of Stadler Valencia, emphasized the importance of the project and the advantages of the new platform: "The EURODUAL locomotive is the result of many years and resources invested in R + D + I. With its avant-garde technology, it covers every need in an efficient and reliable way

offering rail operators numerous economic and ecological benefits."

One of the contracts includes the acquisition by VFLI of the prototype of the EURODUAL locomotive that Stadler is using for the homologation of this new platform in France and Belgium. This versatile locomotive offers two solutions in one combining to operations modes: electric and diesel. It can run on electrified lines at 25kV AC and at 1.5kV DC with a power of up to 7000kW but it is also powered by an IIIB engine rated at 2,800 kW to run on non-electrified lines. Due to its high power and tractive effort and its state-of-the-art adhesion control system, it can transport longer and heavier trains with a single locomotive, with the operative flexibility offered by high-power diesel traction and the environmental benefits of the electric traction.

The contracts also include the supply of 12 diesel-electric locomotives type EURO4001, 3 are acquired directly by VFLI and 9 are acquired by Alpha Trains to be used by VFLI. As a successor to the successful EURO4000 locomotive, the EURO4001 diesel-electric locomotive has inherited incredible performance and reliability. It is a six-axle diesel-electric locomotive with AC/AC transmission and an engine rated at 2800kW that meets the EC 26/2004 Stage IIIB and Stage V emission levels required in Europe as prime mover. The powerful locomotive offers flexibility, high hauling capacity, low energy consumption and reduced operational costs.

▶ Railcars Nos. X304 and X306 of the Chemin de Fer de Provence metre gauge Nice - Digne line chug along between Barreme and Moriez with the 15:23 service from St. Andre les Alpes to Digne les Bains on June 8th. Currently this is the only northern section of the Nice - Digne metre gauge line in operation due to heavy engineering work taking place over several months between St Andre and Plan du Var.

Jeff Nicholls









Vossloh No. 272.607 is seen stabled in Mantes la Jolie yard on May 16th. *John Sloane*



TGV No. 538 stands at Paris Est on May 9th. *John Sloane*



Euro Cargo Rail Class 66 228 is seen on a freight at Mantes la Jolie on May 16th. *John Sloane*







terRegionBretagneZClassEMUNo.27568/27567 at the rear, is seen entering Bayeux on June 16th with a Cherbourg to Lisieux passenger working. *Ray Anslow*

ter Region Bretagne EMU No. 76634/76633 enters Bayeux on June 16th working a Caen to Rennes service. *Ray Anslow*

A pair of OUI Dayse TGV sets stand at Rennes on June 16th. SNCF is gradually introducing inOui across the high-speed network beginning with the new high-speed line between Tours and Bordeaux, and is aiming to complete the rollout across all services by 2020. The travel arm of SNCF has been rebranded as OuiGo. *Ray Anslow*



Alstom re-enters the German tram market with 38 Citadis for Frankfurt

Alstom has signed a contract worth around €100 million with Stadtwerke Verkehrsgesellschaft Frankfurt am Main (VGF), the transport operator in Frankfurt, Germany, for the supply of 38 Citadis trams with special adaptations for the German market. The contract includes an option for 15 additional vehicles.

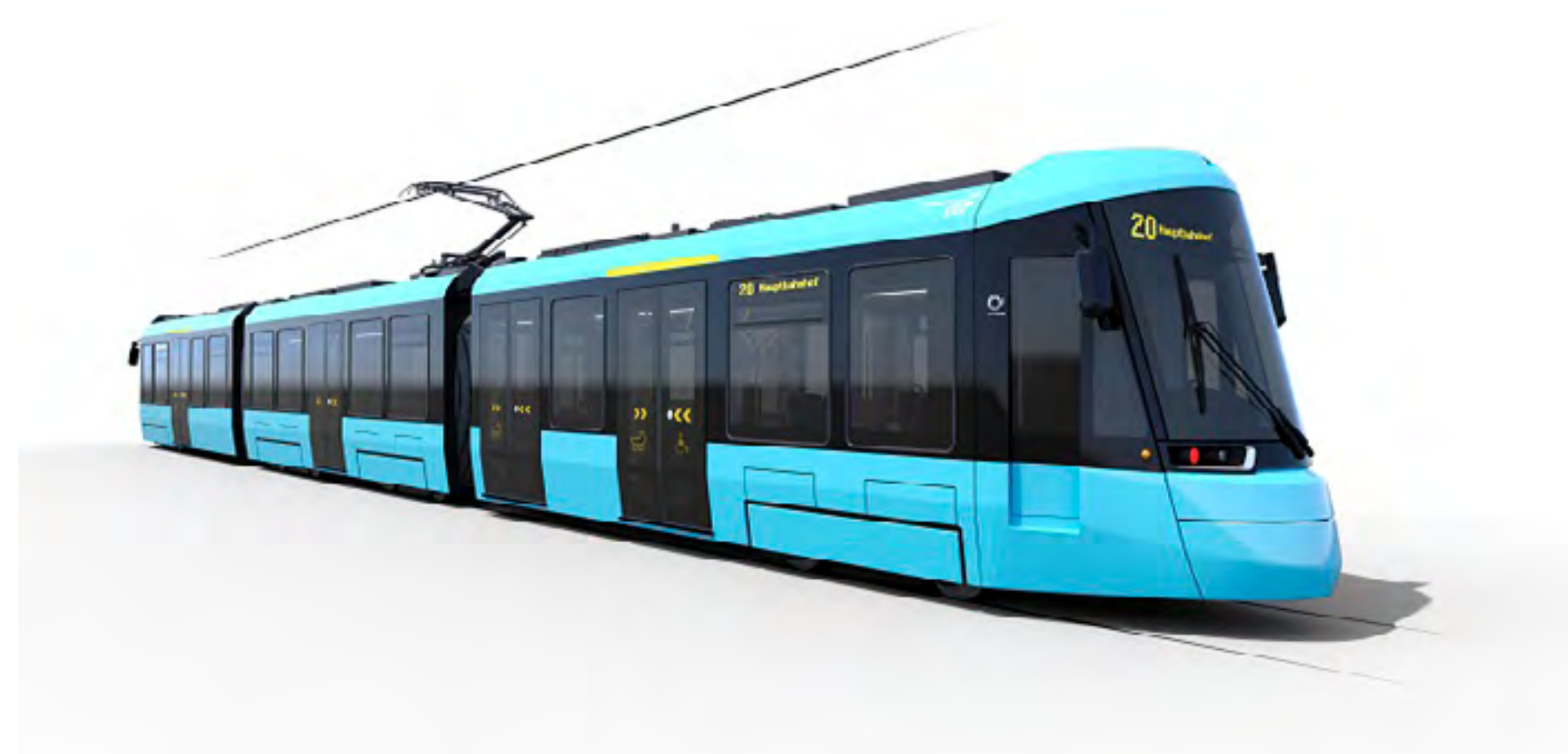
Alstom will also provide training, repair equipment and warranty services. The first two trams will be delivered in 2020 and will run throughout the city's entire tramway network.

“This order once again demonstrates the global success of our flagship tram Citadis. We are very proud to now introduce it to Frankfurt. By providing reliable and modern rolling stock, we commit to supporting German operators in overcoming tomorrow’s urban transport challenges,” said Jörg Nikutta, Managing Director for Alstom in Germany and Austria.

The Citadis trams will run on Frankfurt’s existing lines, reinforcing urban mobility in a city undergoing rapid growth. Demographic forecasts indicate that central Frankfurt will have a population of nearly 825,000 within its administrative boundaries by 2020 and up to 2.5 million residents living in its greater urban area.

The Citadis for Frankfurt is a 100% low floor vehicle, offering superior passenger experience with large glass surfaces, LEDs for soft, homogeneous lighting, large individual seats and travel information on large screens. It includes innovations such as driver assistance systems, automatic dipped beam, and rain sensors. The three-car tram will be 31.5 metres long with a maximum capacity of 197 passengers. Double-doors along the entire length of the

tram ensure enhanced accessibility. Special adaptations for the German market include four pivoting bogies to allow maximum vehicular flexibility, and carriages made of steel. More than 2,500 trams from the Citadis range have been sold in over 50 cities worldwide. The 2,000 trams already in operation have covered over 1 billion kilometres and transported nearly 9 billion passengers since the first tram entered service in 2000.



DB Class 185.055 approaches Bremen with a container service. *Class47*









▶ Dampflok No. 99.1761 stands outside the shed at Radeburg. *Steamsounds*



▶ DB Class 146.265 stands at Duisburg Hbf with an RE1 service to Aachen Hbf. *Steamsounds*



▶ ALEX Class 223.067 stands at Regensburg with a Prague service. *Steamsounds*



 Germany

▶ SNCF Fret BB No. 437009 is seen stabled at Völklingen on April 24th. *Class47*

▶ DB Class 146.010 departs Pirna with a service to Meißen Triebischtalel. *Class47*

▶ Metronom ME 146-542 calls at Hamburg Harburg with a Velzen service. *Class47*



 Germany



▶ OBB Class 1144.275 hauls a rake of empty car transporters through Bremen. *Class47*



▶ DB Class 294.880 stands outside Koln Gremberg yard. *John Sloane*



▶ DB Class 151.094 leads another Class 151 through Hamburg Harburg with a rake of coal wagons. *Class47*



ŠKODA WILL DELIVER 80 TRAMS TO GERMANY

Škoda Transportation has won a tender for the supply of modern trams for transport company Rhein-Neckar-Verkehr (rnv). A total of eighty trams in the basic delivery will be operated on routes in and around Mannheim, Ludwigshafen and Heidelberg. The contract also includes an option for 34 additional vehicles. The basic contract value is more than 250 million EUR.

“This is our company’s biggest export tram contract ever, from both a financial and manufacturing point of view. Our strategy of focusing on Western markets is also paying off. This year we will also deliver trams to the German city Chemnitz. The unique thing about this project for rnv is that the trams will link three federal states of our Western neighbour,” says Petr Brzezina, Chairman and CEO of Škoda Transportation.

The vehicles will operate in three federal states of Germany: Baden-Württemberg, Hessen and Rhineland-Palatinate. The tram tender was announced in March 2017. Tender was attended by key players in the field of transport engineering. The first vehicles will be put into operation in early 2021.

“I’m glad Škoda has succeeded in our priority market Germany again. Basis for the rnv 2020 project are the vehicles of the ForCity Smart family produced in our Finnish plant Transtech, which we are currently delivering to Helsinki and soon to Tampere. Outstanding references, experience with operation in Helsinki and proposed innovations for rnv have been the key to our success in this tender, which was one of the largest in Europe in recent years. The project will involve technical experts from the whole Škoda Transportation group.

Winning this tender proves that Škoda can succeed alongside world engineering giants,” says Zdeněk Majer, vice president of the Škoda Transportation group and Chairman of Transtech Oy, and he adds: “The longest of the three types of trams will be almost sixty meters long. This would be the longest tram in the world.”

“We are growing for the future and with the project Rhein-Neckar-Tram 2020 and the contract to Škoda Transportation we are making a quantum leap for the further development of public transport in the region. Efficient and attractive rail transport is of existential importance, since we want to ensure a sustainable quality of life in our cities. This requires a strong fleet of vehicles”, says Martin in der Beek, Technical Director of rnv. „With Skoda, we rely on a partner that has a product in its portfolio that is innovative and fully developed at the same time. We are commissioning trams for the coming generations of customers. Therefore we need a vehicle, that is not only customer-friendly and comfortable, but also reliable and efficient“, adds Christian Volz, commercial CEO of rnv.

Škoda Transportation is going to deliver three tram lengths with the same technical design - three-carriage, four-carriage and six-carriage. The Plzeň-based company will supply ca. 31 thirty-meter trams, ca. 37 forty-meter trams and ca. 12 sixty-meter trams for the rnv 2020 project. All trams are bi-directional low-floor with all motorized pivoting bogies and a 1000 mm gauge. The vehicles will be equipped with state-of-the art information systems, camera systems and many other innovations. The maximum vehicle operating speed will be 80 km/h. The vehicles will also provide barrier-free access for customers with restricted mobility.

On the Lößnitzgrundbahn (Lössnitz Valley Railway) dampflok No. 99.1789 runs round its train at Radebeul Ost. *Class47*



Having collected a rake of loaded containers in Hamburg, PKP Cargo's Class 193.505 heads through Wittenberge towards Berlin and across into Poland. *Class47*

Siemens books first Smartron order

Eisenbahngesellschaft Potsdam (EGP) orders three Smartron locomotives
New Smartron: One version, one contract, one price
Delivery in early 2019

Eisenbahngesellschaft Potsdam mbH (EGP) has ordered three Smartron locomotives from Siemens. The Smartron, the new locomotive from Siemens, is tailored for a specific transport function and combines the advantages of a standard product with the platform-proven technology of the Vectron. The Smartron is preconfigured for transporting freight in Germany and ensures customers cost-efficient operation with high operating reliability. "In test runs, the locomotive's technical parameters have proven convincing. It also scored points with its intuitive operation, uncomplicated ordering process and manageable delivery times," says Mathias Tenisson, CEO of EGP.

"We premiered the Smartron in March. The fact that we've just received the first order from EGP shows that we have a compelling concept: The new Smartron offers our customers a powerful and reliable locomotive that is configured for defined operations, making it possible

to set a simple purchase process. One standard version, one standard contract, one price – that's the idea behind the Smartron," says Sabrina Soussan, CEO of Siemens Mobility Division. EGP decided on a financing solution from the Financial Services Division of Siemens (Siemens Financial Services).

The Smartron is based on proven components of the Vectron. Siemens is also showcasing the Smartron at the InnoTrans 2018, the international trade fair for transport technology being held in Berlin on September 18-21. The company is again presenting its highlights in Hall 4.2 and in the outdoor exhibition area.





Siemens presents its new high-speed train – the “Velaro Novo”

Improved passenger experience and reduced lifecycle costs
30 percent energy savings, 15 percent lighter
Train undergoing tests since April 2018

Siemens is presenting a new concept for high-speed trains at the InnoTrans 2018, the world’s biggest trade fair for rail technology. The Velaro Novo sets new standards for efficiency and sustainability and at the same time offers the highest passenger comfort and convenience. Siemens has developed the new high-speed platform for service from 250 up to 360 km/h throughout the world.

Running at 300 km/h, the new high-speed train uses 30 percent less energy than previous Velaro models, which translates to average savings of 1,375 tons of CO2 a year. Thanks to its lightweight construction, the train’s weight was reduced by 15 percent. At the same time, available space for passengers was increased by ten percent. The car body is based on the empty tube concept, meaning that there are no permanent installations inside the car and the interior can be furnished according to customer wishes.

“The Velaro Novo is our answer to global demands in high-speed transport. The new train writes a new chapter in the Velaro’s success story and enables operators to offer improved passenger comfort and economy over the train’s entire lifecycle. What we are presenting today is the result of five years of development: a platform offering uniquely optimized energy consumption and maintenance costs, as well as maximum flexibility and reliability,” says Sabrina Soussan, CEO of the Mobility Division at Siemens. Running at 300 km/h, the new high-speed train uses 30 percent less energy than previous Velaro models, which translates to average savings of 1,375 tons of CO2 a year. Thanks to its lightweight construction, the train’s weight

was reduced by 15 percent. At the same time, available space for passengers was increased by ten percent. The car body is based on the empty tube concept, meaning that there are no permanent installations inside the car and the interior can be furnished according to customer wishes. Configuration options like this make the Velaro Novo future-proof and flexible, and the trains can be adapted to an operator’s new needs even after years in operation. Maintenance costs are reduced thanks to the integration of state-of-the-art measurement and sensor technology.

Siemens has been testing parts of the new high-speed train since April 2018. The Novo test car, integrated into the ICE S operated by DB Systemtechnik, is currently undergoing test runs throughout Germany. Siemens previously developed four generations of the Velaro. The trains have been in service since 2000 and are currently operating in Germany, the Netherlands, Belgium, Switzerland, Spain, France, China, Russia, the United Kingdom and Turkey. The Velaro fleet covers over one million kilometres a day. In Germany, the Velaro is known as the ICE 3 (series 407), operated by Deutsche Bahn AG. Siemens began with the development of the new Velaro Novo concept in 2013 and can place the first trains in service as of 2023. Siemens is premiering the new concept to an international trade fair public at the InnoTrans 2018 as part of a digital staging.



OBB Class 1116.079 heads north along the side of the river Rhine near Lorch, heading towards Köln. *John Sloane*







Trenitalia and Alstom present the first vehicle Pop

The first example of the Trenitalia Pop train is now on show to the stakeholders at the Alstom site in Savigliano. In July, the first homologation tests on tracks, necessary to the subsequent admission into service, will start. The train, designed and manufactured in Italy, in the Alstom sites of Savigliano, Sesto San Giovanni and Bologna, will begin to be delivered by Trenitalia to the regions starting from spring next year and it will be immediately ready to enter commercial service. Of the 150 trains provided on the basis of the Framework Agreement between Alstom and Trenitalia, deliveries to Emilia-Romagna, Puglia, Veneto, Sicily, Piedmont, Liguria, Abruzzo and Marche are already planned.

The first Pop will be in Velim, in the Czech Republic, in the next few weeks. There the dynamic technical tests will take place in a special railway circuit, before going back to Italy where it will complete the tests in the national network railway. Also, the Pop will be presented at Innotrans 2019, the most prestigious international transport fair, from 18 to 20 September 2018 in Berlin. Tiziano Onesti and Orazio Iacono, respectively President and CEO of Trenitalia were among those present at the ceremony in Savigliano, together with the Italian Alstom management, Michele Viale, CEO of Alstom Ferroviaria and Davide Viale, Director of the Alstom site of Savigliano.

“We are about to change the life of Italian commuters with a 4.5 billion investment plan in new train. - said Orazio Iacono, CEO of Trenitalia - The new Pop, more performing, ecological and technological than previous models, is at the core of this industrial operation that, is unprecedented in Italy, given its economic value and number of trains purchased. Pop has been designed around the needs of Trenitalia’s commuters and staff who will have to work on it: more convenient, more sustainable and more accessible for everyone, included people with reduced mobility and disability. It will be in service in all the Italian regions where Trenitalia has already signed or will sign with the Administrations long-term service contracts. The latter satisfies the mobility demand of citizens in terms of quantity, capacity and internal layout, which will be in line with the needs expressed by the Regions. By 2024 - concluded Iacono - we will renew 80% of our regional fleet and the average age at national level will decrease from the current 20 to 9 years “.

“We are proud to present the first POP vehicle to our client Trenitalia and to the Italian regions. POP represents Alstom’s latest generation of our regional train Coradia Stream – a fully adaptable, sustainable and technological train designed to meet the full range of passenger needs. We are pleased that Trenitalia has renewed its confidence in Alstom as a reliable partner delivering quality products,” said Michele Viale, Managing Director of Alstom in Italy and Switzerland.

The train Pop is a low-floor, high-performance single-deck electric multiple unit (EMU) composed of 3 or 4 cars, equipped with 4 traction motors. It can travel at a maximum speed of 160 km/h and can seat more than 300 passengers in the 4-car version and more than 200 in the 3-car one. The possibility of customising the train is one of its unique characteristics. Alstom has developed an on-board configurator, which allows the Italian regions to choose from a variety of interior layouts and modify the seating arrangement according to the type of passenger service requested. The technology is a further element of train differentiation. Pop is equipped with an information system integrated with the Trenitalia ground infrastructure, offers audio and video infotainment service with LCD display visible from all vehicle areas, as well as Wi-Fi accessible to passengers and crew. Passenger safety is ensured by a system of digital video surveillance with visualization on the monitors of the images taken in the compartments.

As important is the respect of eco-sustainability and energy efficiency criteria. Pop is 95% recyclable and consumes less energy than previous generations of EMUs. The Pop trains are part of a framework agreement signed in August 2016 with Trenitalia for the supply of 150 medium capacity regional trains.



SVF contractors loco, RFI 270.160 (Ex DB Class 211) stands at Pistoia station. *John Sloane*



Départ 11 52 RB
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▶ Rail Feeding locomotive BR203 No. 24 runs over the viaduct Stadhouderskade in Rotterdam while the stork takes care of her young ones on May 28th. *Erik de Zeeuw*

▶ NS Sprinter No. 2137 arrives at Amsterdam Centraal. *Class47*

▶ On May 28th, NS Sprinter (SLT) passes the lifting bridge over the canalized river 'Gouwe' in Gouda. *Erik de Zeeuw*



▶ A new coat of paint for PKP Cargo's ST44-1201 inside the old steam roundhouse at Leszno, seen on June 25th. *Jeff Nicholls*

▶ With a lot of horn blowing, Lotos liveried Traxx unit No. 3105 makes a strange combination coupled up with Arriva unit No. MR4080 on a run past at Miedzyrzecz during a railway fair held at the town's station on June 23rd. *Jeff Nicholls*

▶ Twin loco No. ET41-133 hauls a long freight through Nowy Tomysl on June 24th. Basically, these twin units are made up of a pair of Eu07s back to back, with the inner cabs removed. *Jeff Nicholls*





▶ Preserved SM30-507 waits at Miedzyrzecz station with some old four wheeled coaches during a railway fair at the town on June 23rd..
Jeff Nicholls

▶ In smart PKP Cargo colours, No. SM42-1093 sits inside the old steam roundhouse at Leszno undergoing routine maintenance on June 21st.
Jeff Nicholls

▶ DMU No. SA133-006 passes the wonderful signal box at Gorzow Wielkopolska on June 23rd with an empty stock movement. The coaches on the left are part of a steam hauled special from Wolsztyn to Miedzyrzecz. *Jeff Nicholls*







Portugal



Medway Class 335.035 'Sara' is seen stabled on stock at Contumil. *John Sloane*



Bombardier built diesel locomotive No. 1962 is seen awaiting departure at Porto Campanha. *John Sloane*



CP EMU No. 3415 departs Campanha. *Paul Godding*



 Portugal



▶ Porto tram No. 220 stands at the terminus of Line No. 1. *John Sloane*



▶ Former Spanish Renfe units Nos. 592.078 and 592.253 are seen at Viana do Castelo station. *John Sloane*

▶ Alfa Pendular No. 4005 is seen stabled in Contumil yard. *John Sloane*

 Portugal



On May 22nd, CP No. 5616 arrives into Campanha. *Paul Godding*



Former CP Alco RS3 No. 1525, now in service with contractor Somafel for electrification work, is seen in the yard at Darque near Viana. *John Sloane*

1928 built Porto trams Nos. 274 and 275 are seen at Massarelos depot. *John Sloane*







 Slovakia

▶ ZSSK Class 721.012 hauls a rake of empty stock through Zilina. *Class47*



▶ ZSSK Cargo's Class 751.047 undergoes maintenance at Plesivec on April 22nd. *Class47*

▶ A triple headed tank train headed by Class 742.510 approaches Turčianske Teplice. *Class47*







 Slovakia

▶ Class 750,183 passes Dolna Stubna whilst working train No. R951 13:03 Vrutky - Banska Bystrica. *Laurence Sly*

▶ Class 757.019 passes Dolna Stubna whilst working train No. 7521 06:50 Vrutky - Horna Stubna. *Laurence Sly*

▶ ZSSK Cargo's Class 756.006 and 756.007 approach Dolna Stubna whilst hauling a freight train. *Laurence Sly*







 Slovakia

▶ Class 754.084 approaches Dolna Stubna whilst working train No. R946 11:02 Zvolen - Zilina. *Laurence Sly*

▶ ZSSK Class 754.084 approaches Turcianske Tuplice whilst working train No. FT953 14:54 Zilina - Zvolen. *Laurence Sly*

▶ Class 750.183 passes Cremosne whilst working train No. R344 09:34 Banska Bystrica - Ostrava. *Laurence Sly*













Alstom to upgrade the on-board train control system on high-speed trains in Switzerland

Alstom has been awarded a contract by SBB, the Swiss Federal Railways, to upgrade the on-board train control systems of its entire Astoro fleet, which represents 19 Pendolino high-speed trains previously delivered by Alstom. This contract is worth around €16M.

The trains will be equipped with the ATLAS ETCS Level 2 baseline 3, the newest application of ERTMS (European Rail Traffic Management System), and will have the national system as a specific transmission module piloted by ERTMS. The train will be able to operate under this new ETCS baseline 3 system in four countries: Switzerland, Italy, Germany and Austria. This signalling project is also the first to be homologated by the European Union Agency for Railways (ERA). This project will be led by Alstom's signalling teams based in Bologna and Florence in Italy. Alstom's site in Savigliano will also be involved for the necessary adaptation of the trains. Alstom's teams in Neuhausen (Switzerland) will take part in the project supervision and be in charge of the customer management.

Alstom is a world leader in ERTMS technology. The company has been awarded contracts in 23 countries and was also the first company to equip a high-speed line (Rome-Naples, Italy), in addition to a transnational high-speed line (from Liège to Belgium to the German border), a high-traffic line (Mattstetten-Rothrist, Switzerland) and the line dedicated to freight traffic (the Betuweroute line in the Netherlands).



SBB Class 511.016 passes Eglisau with a RE service to Zurich HB. *Paul Godding*



Roll-out of the Voralpen-Express: Stadler and the Swiss railway company Südostbahn AG together unveil the new 'Traverso' train

Stadler and Südostbahn AG (SOB) have celebrated the roll-out of the new 'Traverso' for the Voralpen-Express line in the company of around 200 guests from business and politics. After just under two years of development and construction work, the multiple-unit FLIRT train 'Traverso' was presented for the first time. The trains for the SOB reflect the current development status of the FLIRT vehicle line (Fast Light Intercity - and Regional Train) – with innovations such as completely new motor bogies and other optimised carrying bogies. Altogether, Stadler is building 6 eight-car and 5 four-car trains for the SOB. Changes to the 2019/2020 timetable will coincide with the implementation of the new fleet of the popular Voralpen-Express for the railway's St. Gallen – Lucerne line.

The SOB ordered the electric low-floor multiple units from Stadler at the end of June 2016 in order to be able to replace its older compositions, some of which had been in operation for 40 years, with eleven new vehicles when the timetable changes for 2019/2020. The new trains will run on the Voralpen-Express route between St. Gallen and Lucerne, adding to the quality and comfort of the journey through the Pre-Alps.

The roll-out is one of the most important milestones in the creation of a rail vehicle featuring highly-complex technology. It is common practice in the industry to duly celebrate reaching this stage of the realisation process. The spectacular arrival of the 'Traverso' in Erlen was watched live by around 200 guests from business and politics invited to the event.

Peter Spuhler: "Contribution to the Voralpen-Express success story"

"We are very proud to be able to present the new train for the Voralpen-Express line in association with the SOB. We are delighted to be making a contribution to the Voralpen-Express success story, and are extremely pleased that Stadler trains will be used on this beautiful route between St. Gallen and Lucerne. The new trains will offer passengers even more comfort and a great improvement in their travelling pleasure", commented Peter Spuhler, Chairman of the Board of Directors of Stadler. Thomas Ahlburg, Group CEO of Stadler, also highlighted the good teamwork between the project teams from Stadler and SOB: "The two project teams worked extremely well together, which was very instrumental in enabling this train to be developed and constructed so quickly." He went on to add, "Both companies have a pragmatic approach to challenges. This was apparent in the joint testing of new technologies for existing vehicles, for instance. In the case of the new Voralpen-Express, a variety of innovations could be incorporated into the train thanks to the excellent cooperation between the two project teams. We are grateful to be able to work for companies like SOB so that we can prove together that state-of-the-art technology can be developed and implemented in record time in the Swiss workplace."

The cooperation between the two companies from Eastern Switzerland goes back a long way: according to Peter Spuhler, the SOB is one of Stadler's oldest customers. "When the founder of Stadler, Ernst Stadler, died unexpectedly in 1981 and Irma Stadler had to step in overnight as the new head of the company, it was far from easy for her or for the workforce. The SOB was the first customer to place an order with Irma Stadler, for two control cars which were produced from existing passenger cars with baggage compartments. This went a long way to helping overcome the difficult period after the death of Ernst Stadler."

After carrying out an extensive modernisation programme on the SOB's existing fleet at the end of the 1990s, Stadler is now replacing the fleet for the Voralpen-Express line. "Of course we also hope to continue this successful partnership in the future", Thomas Ahlburg told guests.

Hans Altherr: "By moving into the field of long-distance transport, we are doubling the number of kilometres covered"

"15 December 2019 and 13 December 2020 are two important, or even historic, dates for the SOB. Once timetable changes have been introduced in December 2019, the new vehicles will be rolled out on the Voralpen-Express line to replace the entire previous Voralpen-Express fleet. And on 13 December 2020 the SOB will enter into a partnership with Swiss Federal Railways (SBB) in the area of long-distance transport. From this date, trains will set off each hour from Zurich or Basel in turn, and cross the Gotthard mountain route to Locarno,

considerably increasing our market area", declared Hans Altherr, Chairman of the Board of Directors of SOB.

The new, eight-car trains are copper in colour. "As a semiprecious metal, copper symbolises value and solidity on the one hand, and is closely linked to the history of human progress on the other. The new trains represent progress for everyone: travellers, the SOB and Stadler. This is the idea we want to express with the copper colour", stressed Thomas Küchler, CEO of SOB, at today's event. The new multiple-unit will go by the name 'Traverso' once it is operated by the SOB both on the Voralpen-Express route and for long-distance journeys. "The word Traverso is based on the Italian verb meaning to cross. We will be using the new vehicle to cross Switzerland – from north to south and from east to west", explained Thomas Küchler.

A comfortable ride through the Pre-Alps

The eleven vehicles comprise six eight-car and five four-car latest generation multiple units. The trains stand out for their innovation and comfort. They allow passengers to experience a journey in a unique vehicle on a unique route. The high-quality interior fittings have been specially tailored to the needs of the different user groups: commuters will find areas where they can work in peace and quiet. Tourists and people on weekend excursions can enjoy fabulous views from the panoramic windows, stow skis and bikes away safely, and buy food and drink in the two catering areas. There is even a special area designated for families. The train meets the latest European legislation regarding equal access for handicapped persons, and has an information system with between four and seven screens per car. The eight-car trains can seat over 359 passengers, including 68 in first class. The four-car trains can seat 197 people, including 22 in first class. Passengers can plug their devices into power outlets fitted next to every seat. The trains run at an operating speed of 160 kilometres an hour and have a new, lightweight bogie which can be replaced quickly during maintenance work.

The new 'Traverso' also has the following characteristics which are typical of all the vehicles in the FLIRT family: step-free entrances, a spacious, clearly laid-out interior, and car bodies with a lightweight aluminium construction, which results in significantly lower energy consumption and therefore considerably reduces energy costs. Innovative vehicle technology enables low-wear operation on the SOB's winding transport network.











Alstom presents first freight locomotive for Azerbaijan

On June 27th, Alstom presented the first Prima T8 AZ8A electric freight locomotive for Azerbaijan Railways (ADY). The event took place at Alstom's site in Astana, Kazakhstan, where 40 such locomotives are being manufactured by Alstom joint venture EKZ.

The first AZ8A forms part of a 2014 contract awarded to EKZ by ADY for a total 50 locomotives, including ten Prima M4 AZ4A passenger locomotives.

"Today we are very proud to present the result of strong collaboration between Alstom and ADY: the very first freight locomotive produced for Azerbaijan at our plant in Kazakhstan. We are pleased that this locomotive will be part of the development of the transit link between the Caspian and Black Seas, Russia and Iran – an intersection where Azerbaijan, with its 3,000 kilometres of line, plays a key role," said Bernard Peille, Alstom Managing Director for the Western and Central Asia Cluster.

The AZ8A is a Prima T8 heavy freight locomotive developed for Azerbaijan. It is based on the KZ8A locomotives currently in service in Kazakhstan and ADY's specific technical requirements, and is compliant with GOST standards and specifications.

With its eight axles, Prima T8 is one of the most powerful electric locomotives in the world. This model is a two-section freight locomotive

capable of towing up to 9,000 tons and running at 120 km/h, with installed continuous power of 8.8 Megawatts. The AZ8A is designed to operate in temperatures ranging from -25°C to 50°C. It requires minimum maintenance and provides high reliability levels and low lifecycle costs thanks to its modular design.

EKZ, a joint venture between Alstom and Transmashholding (TMH), employs 420 people and is working on supplying and maintaining the Prima electric locomotives ordered by KTZ, Kazakhstan's national railway company, for 2020. Today, 48 KZ8A freight locomotives and 20 KZ4AT passenger locomotives are already in commercial operation on Kazakhstan's rail lines.

Alstom is present in Kazakhstan with more than 600 people, two joint ventures and two facilities, EKZ in Astana for locomotive manufacturing and maintenance, and KEP in Almaty for the production of point machines. Alstom is the only manufacturer of electric locomotives and point machines in the Central Asian and Caucasian region and a major contributor to the revitalisation of its rail industry and the development of its economy.



CAF IS AWARDED THE SUPPLY OF 87 TRAMS FOR THE CITY OF OSLO

Sporveien, the public operator for all urban transport in the Norwegian capital has given notice that CAF's bid has been selected for the contract for the supply of 87 trams. The contract volume will exceed 200 million euros, whilst a possible extension of a further 60 trams will also be considered.

The Oslo tram network consists of six lines with a total of 99 stops along the routes and, serving a daily total of in excess of 130,000 passengers, it has become one of the city's main means of transport. The purchase of this new fleet of vehicles falls within the scope of the plans for the extension and modernisation of the tram line that the city is currently undertaking, where the units currently providing the service will be replaced.

This marks one of the largest tram contracts that CAF has been awarded to date, and the largest tender, in terms of volume, open this year on the tram market. It must also be highlighted that this is the second vehicle contract awarded to CAF in the Scandinavian country, as the high speed Oaris range units are currently in the testing stage for the express service between Gardemoen airport and Oslo city centre, which will be operated by the company Flytoget.

The tram offered in the bid is part of CAF's Urbos range, which, over the past few years has become the world leader in the modern tram (low floor) sector, with contracts recently awarded in Amsterdam, Flanders, Luxembourg, Birmingham, etc.

The units will be 34 metres long, with six double access doors and they will be similar to those units CAF previously supplied to the French city of Nantes. The design also includes special features to withstand the typical demanding weather conditions in Norway. The units also include state-of-the-art systems such as the "head-up display", the scope radar to prevent running people over, wi-fi, USB chargers, double screens for the passenger information system, etc. It must also be pointed out that the Urbos range trams have been designed to reduce impact on the environment during the entire operating life of the unit, from its original design, to its manufacturing, its energy consumption through to its recyclability.

This new project strengthens CAF's backlog, and is yet another addition to other recent awardings in this first half of 2018 such as the supply of metro units for the cities of Naples, Barcelona and Amsterdam, trams for Luxembourg, Freiburg and Lund, as well as the supply of diesel trains for the Wales and Borders franchise in the United Kingdom, all of which were obtained in the European market.





Alstom's Metropolis five-car trains start commercial operations in Panama's Metro

The firsts modified Alstom Metropolis trains, from three to five cars, has started commercial operations on Panama's Metro Line 1, as part of the contract signed by Alstom in 2015, to supply 70 additional cars to the fleet of the city's Metro.

The extension of Line 1 is achieved through a process known as retrofit, which began in November of 2015 and will end in 2019. In this process Alstom, in addition to supplying 6 new five-car trains, will extend the fleet by transforming three-car trains into five-car trains, resulting in a fleet of 26 trains of 5 cars. Thanks to this fleet extension, Panama's Metro Line 1 will improve the mobility of more than 293 thousand passengers that use this line on a daily basis, increasing its capacity by up to one thousand passengers per train.

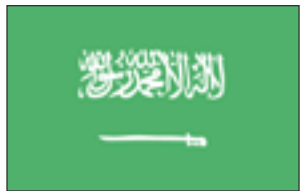
Besides this retrofit, Panama's Metro also renewed its preventive maintenance contract with Alstom for the

maintenance of the power and signaling systems as well as to the trains of Line 1, which includes a detailed plan to not impact the reliability and availability of the services offered to the users.

"Thanks to the retrofit process and to the preventive maintenance that Alstom performs, our client and Metro users will be guaranteed of having a public transport system available, which meets the highest safety and quality standards, as well as the support of Alstom as an expert of the railway industry", said Jean-Michel Morvan, Project Director at Alstom.

The trains that run through Line 1 are from the Metropolis range, which is manufactured on Alstom's plant in Santa Perpetua, Barcelona. One of the main advantages of these trains is their modularity, which permits to add new cars

depending on the needs of the operator. On Panama's case, the retrofit will also allow the interoperability between the Line 1 and the new Line 2 trains, connected through a linked track. Alstom has been present in Panama since the beginning of the Metro Line 1 project in 2014 and has also been part of Line 2. In regional terms, Panama represents a milestone in the history of the company, having delivered the first metro system in Central America in a record time of 39 months.



Alstom conducts initial dynamic tests for Riyadh Metro

Alstom has, for the past few weeks, been conducting initial dynamic tests for the Riyadh Metro Project at the FAST consortium Line 4 Depot Test Track in Riyadh, Kingdom of Saudi Arabia. The Riyadh Metro Project, owned by Arriyadh Development Authority (ADA), consists of 6 lines totalling 176 km and 85 metro stations.

The test campaign includes the demonstration of the performance of the railway system, from power supply to signalling systems, using the trains which have already been delivered.

Alstom, as part of FAST consortium is supplying a fully integrated metro system for lines 4, 5 and 6, which includes: 69 Metropolis-based Riyadh Metro trains, Urbalis signalling system, Hesop energy recovery station as well as tracks. The Metropolis-based train for Riyadh is composed of two cars per set and is 36 metres long. Each train features three classes: first class, family class and singles class. The trains will offer passengers a high level of comfort, ergonomic seating, LED lighting, air conditioning and passenger information system.

"This test run is a significant milestone for Alstom and for the project. We are proud to conduct the tests in Riyadh in order to deliver a state-of-the-art metro to our customer Arriyadh Development Authority (ADA) and the inhabitants and the visitors of Riyadh", said Didier Pflieger, Senior Vice President for Middle East and Africa.



The trains are driverless. The train movements are protected by a state of the art signalling system controlling the speed of the trains, ensuring smooth and safe operations including automatic opening of the train doors. The fully air-conditioned stations are equipped with platform screen doors also preventing people to access the track. The trains are also equipped with an advanced passenger information system delivering real time information to the passengers through screens and loudspeakers on board the train and on the station platforms.



High-speed, automation and interconnectedness

Mobility of the future: Researchers and city planners are developing ideas of how trains and stations might look a few decades from now. Hubs or transshipment terminals in our city centres: huge changes are in store for railways and stations as people and products become more and more mobile. That will lead to more passengers, more trains, higher speeds and shorter intervals. At the same time space is becoming ever scarcer as metropolitan areas continue to grow.

Today, researchers, architects, city planners and DB employees are already working on the future of rail freight transport. They are designing stations that are more flexible, more efficient and – most importantly – smarter.

Passenger railway stations that form part of a larger complex of buildings, containing offices, apartments and local recreation centres, are conceivable. As central hubs between various modes of transportation, the railway stations of the future will continue to grow in importance. In just a few decades, passengers will commute in a high-speed, autonomous pods from one interchange point to the next. Smaller railway stations will become lively centres of public life. The more cities grow, the less centrally organised they will be. Instead of one city centre, there will be many smaller centres, similar to the current situation in Berlin. Railway stations can become the core of these hyper-local communities”, says Johannes Zück from DB. He is working on the topic of smart cities in the department for Group strategy.

Hauling freight all the way into the city centre

Naturally, these changes will affect freight transport, too. Freight trains have long been high-tech modes of transportation with a high level of interconnectedness. In future, they could become even smarter and more efficient.

The German Aerospace Centre (DLR), for example, is working on the “Next Generation Train NGT Cargo” project to devise the train of the future. “We want to make transporting goods by rail more flexible, efficient and punctual and thus more attractive”, says Joachim Winter, the project head. Smart individual wagons with their own electric drive could be ordered by customers using apps and assembled into trains by means of automated processes. Coupling and control processes managed digitally will network the single wagonload network with block trains operating at constant intervals. That will save time and money and add to the number of trains that can travel on the network.

The transshipment terminals will also change accordingly. Various carriers will be automatically loaded and unloaded on open sidings and in centralized logistics centres. It will be possible to transport even small quantities of freight at a reasonable cost.

These highly automated means of conveyance will even transport cargo up to the last mile. The transshipment terminals in the cities and metropolitan regions of the future will be linked to an underground rail network. Freight will be loaded automatically on multiple levels or transferred onto other modes of transport while city life continues above ground.



CAF WINS THREE NEW TRAM CONTRACTS WITH A TOTAL JUST SHY OF €100M

Once again, Luxembourg chooses CAF as tram supplier

On Monday 4th June, the Minister for Transport of Luxembourg, François Bausch, and the Mayor of Luxembourg City, Lydie Polfer, held a press conference to present the second phase of the city tram line which is currently under construction. The primary feature of this new phase is catenary-free running. The units are power supplied at tram stops by means of a ground-level charging system. The operator, Luxtram, has selected CAF as the supplier of 12 trams for the commissioning of this new phase with an aggregate in excess of 40 million euro.

Remarkably, CAF signed a contract in 2015 with the same operator for the supply of 21 units which are currently running in revenue service. The new trams belong to the Urbos 3 family, and are similar to those in operation on the current line. They are fitted with supercapacitor accumulator technology and ground-level rapid charging at stations. Consequently, Luxembourg will be the second city in the world boasting this innovative technology by CAF. This technology reduces the architectural impact of tram overhead catenaries in city centres, saves energy by preventing rheostatic losses on the line, and optimizes brake energy regeneration.

CAF Group’s affiliate, CAF Turnkey & Engineering, will be entrusted with the supply of facilities and charging equipment for each tram stop.

CAF awarded with two contracts for the cities of Freiburg (Germany) and Lund (Sweden)

The City of Freiburg in Germany renews its trust in CAF with the new contract award for the supply of an additional 5 trams. This order is an extension of the Urbos fleet of 12 trams recently supplied by the Company and which are currently providing revenue service in the city. Furthermore, the contract contemplates the eventual extension of the procurement with yet another seven unit order. Seated on the edge of the Black

Forest, Freiburg has 220,000 inhabitants and sports a distinct inclination towards sustainability and proactive protection and preservation of the environment. In this context, the new trams will become a hallmark of the city where car traffic ranks lower in transport preferences.

Besides, Skånetrafiken, the transport operator of the Skåne region in the south of Sweden, has selected CAF for the supply of 7 trams for the city of Lund. These units will run along the 5.5 km line with 9 stops which is currently being built in the city.

In this particular case, CAF’s scope includes the maintenance of the units for 10 years in addition to the supply of the vehicles. Again, provisions have been made for the extension of the number of units.

The Units to be supplied to this Scandinavian country are also part of the Urbos Tram platform. Vehicles will comprise 5 modules each for a total length of 32 meters. They will feature state-of-the-art technology helping minimize both operating and maintenance costs.

The aggregate of the aforementioned two contracts is close to 60 million euro, but this figure could fall short in case any of the extension options are exercised.

Yet again, CAF upholds its commitment to supplying high quality transit vehicles which are comfortable and accessible and promote sustainable transport in urban areas. After all, we mustn’t forget that CAF’s trams are already running on a long list of European cities such as, Budapest, St. Etienne, Nantes, Belgrade, Utrecht, Birmingham, Edinburgh and Stockholm.



TRANSTECH WILL DELIVER 10 NEW FORCITY SMART ARTIC TRAMS TO HELSINKI

Transtech Oy, a subsidiary of Škoda Transportation, will supply ten ForCity Smart Artic trams for the Finnish City of Helsinki. Previously Helsinki City Transport has ordered sixty same ForCity Smart Artic trams. This delivery is worth 30 million EUR. In recent years, Helsinki has ordered a total of 99 trams worth more than 300 million EUR.

“I am very proud that HKL Helsinki is satisfied with the Škoda’s trams and the local transport company is ordering ten more vehicles. ForCity Smart Artic trams will be also delivered to another Finnish city – Tampere – and moreover, there are a few hundreds of our modern double-deck coaches used in all over Finland. We have been really successful on this market

in the last years. Transtech has fully incorporated into Škoda Transportation group with the sales of about 120 million EUR,” says Zdeněk Majer, Vice President of Škoda Transportation and Chairman of Transtech.

“The future growth of the city of Helsinki is very much based on increasing tram transportation. Helsinki City Transport (HKL) and the citizens in Helsinki have been satisfied with the experiences of ForCity Smart Artic trams. It is therefore easy to make this decision to increase our Artic fleet,” says Ville Lehmuskoski, CEO of Helsinki City Transport (HKL).

There are currently 48 ForCity Smart Artic trams operating in Helsinki. The first Artic trams have been in operation in Helsinki since 2013.



“According to our customer, Helsinki City Transportation, the popularity of the trams is increasing among the passengers and Helsinki City is responding to that by exercising an option. In close co-operation with Helsinki City Transportation we have developed a tram which is reliable and energy efficient and has proven to be the right choice. We believe that it will be also a success in the international market,” says Lasse Orre, CEO of Transtech Oy. The one-directional three-part ForCity Smart Artic Helsinki tram has a gauge of 1 000 mm, it is a fully low-floor tram and it is 27,4 m long. The vehicle also offers barrier-free access for wheelchair users and prams. The all-wheel drive and robust chassis and axle design enables trouble-free operation in challenging climatic conditions.

Transtech is the largest manufacturer of rolling stock in Nordic countries. The company was founded in 1985. Its main products include double-deck passenger coaches (operated as PushPull trains), trams and engineering products. It currently employs approximately 700 people. In addition to trams, the company’s key contracts include the delivery of double-deck pressure-tight coaches for state-owned VR Group (Finnish railways), which are designed for a speed of 200 km/hr.



Bombardier Transportation Inaugurates New Production Hall for Series Production in Saxony – Kick-off for Industry 4.0 at its Bautzen Site

Rail technology leader Bombardier Transportation inaugurated a new final assembly hall in Bautzen, Germany recently with Saxony’s Prime Minister, Michael Kretschmer, and Saxony’s Minister of Economic Affairs, Martin Dulig, in attendance. Among the other guests were the Mayor of Bautzen, Alexander Ahrens, and Saxon State Parliament Representative, Marko Schiemann. Bombardier Transportation has invested around eight million euro in the final assembly hall and commissioned a large number of companies from Saxony.

The new hall can produce up to 600 cars per-year. Its production spectrum ranges from regional and intercity trains to suburban and underground trains, and trams. Three different vehicle types can be produced at the same time and Bombardier Transportation’s most advanced assembly hall in the world impresses with its increased use of digital technologies. It is also a prime example of efficiency. Compared to its predecessor, the new hall can save around one million euro per-year in terms of logistics, energy and maintenance costs.

Around 500 employees have their ultra-modern workplace in the hall, which boasts a total 8,100 square metres of factory floorspace. Around 5,000 cubic meters of concrete and 1,300 tons of steel were used in the new building. In addition, around 24 kilometres of electrical cables were laid, and 568 lighting fixtures installed. When including the costs for the production hall, Bombardier has invested around 30 million euro in the Bautzen site.

Lusatia. The investment now planned will secure 1,000 jobs here at Bombardier, and many more for the suppliers in the region. I am grateful to the company for its clear commitment. We have been through some difficult negotiations and some very uncertain times. I am very grateful to all those who supported the retention of the plants in both Bautzen and Görlitz. Now, the focus is on creating favourable prospects for the Görlitz plant as well, because the potential that exists there is not yet exhausted.”

“Today’s hall inauguration will send a positive signal to the employees and represents an important step in repositioning and securing the two Saxony sites. The goal here is to set future standards for Industry 4.0 production in the railway industry. We want to bolster the initiative for more Industry 4.0 at Bombardier’s Bautzen site, and ensure efficient logistics. This was announced exactly one year ago here by Federal Minister, Brigitte Zypries and myself, and we deliver on our promises. The Free State will support the new construction of the Spree Bridge, and the expansion of the municipal access road with development funds,” said Saxony’s Minister of Economic Affairs, Martin Dulig.

“The new hall and modern Industry 4.0 production mark the start of a new era at the traditional 170-year-old Bautzen site,” says Michael Fohrer, Head of Bombardier Transportation in Germany. “We are investing in, and establishing, a competence centre for the series production of regional and intercity trains as well as commuter and metro trains, and trams. These are powerful arguments for the plant’s bright and promising future.”



The new streetcar that rides at the pace of the city

Toronto is the financial and multicultural metropolis of Canada. The daily life of its 6.3 million citizens is punctuated by a series of movements that begins well before the opening or closing of stock markets, or major financial transactions with other continents.

One of these rituals, shared by all major metropolis of the world, is the race against the clock in the traffic jams that dot the commutes between home and work.

In Toronto, regardless of the time of year, time of day, or weather conditions, the BOMBARDIER FLEXITY low-floor streetcars, selected by the Toronto Transit Commission (TTC) crisscross the winding, sloping streets of the city, carrying a steady stream of passengers.

These colourful red streetcars are custom-built at Bombardier Transportation's Ontario plants in Thunder Bay and Kingston. They were designed to adapt to the different topography of the city and its densely populated neighborhoods, all the while facing the rigors of an icy winter fed by Lake Ontario's strong winds.

With the passage of time, beyond a sustainable, efficient and comfortable mode of urban transportation, these streetcars have become a true signature of the Queen City. A symbol across Canada, just like the high-reaching CN tower and the Skydome's retractable roof. It's hard to believe that making a low-floor streetcar requires more cables than a plane!

Indeed, the cables that connect the software, the interfaces, the passenger information screens, the anti-derailment system, and the front and back surveillance cameras span hundreds of kilometres.

This makes this streetcar one of the most sophisticated transit vehicles in Canada.

Toronto Transit Commission's ambition to replace its older streetcars with a model that allows Toronto citizens to easily board and travel in comfort throughout the city is embodied in the new low-floor streetcars, which can easily accommodate children's strollers or mobility-impaired customers, including those with wheelchairs.

Their development and commissioning has been marked by great ingenuity, deep pride and significant economic spinoffs across the country.



The first new Mälartåg from Stadler on show at Stockholm Central Station

On June 27th, the first Mälartåg (Mälar train) from Stadler was on show at Stockholm Central Station in cooperation with Mälåb and Transio. The train is a variant of Stadler's DOSTO double-decker train and is going to run in the Mälardalen region from 2019. Stadler's trains are well equipped for Nordic winter conditions and maintain a high standard for Swedish travellers.

The train is being put on show at Stockholm Central Station for media and invited guests, and is the first of the 33 new double-decker trains Transio, commissioned by Mälåb, ordered from Stadler. The model is called DOSTO and is already operating in Switzerland, Austria, Germany, Luxembourg, Russia, Georgia, Azerbaijan and has also been sold to the USA. The trains share technology with the FLIRT trains used by Norwegian NSB, Finnish VR and Swedish MTR Express. They are designed to run at minus 40 degrees and with a depth of 800 mm of snow on the track. Some examples of the design solutions incorporated to withstand the extreme weather conditions are inter-carriage connections with twin bellows, large snow ploughs, efficient floor and wall heating systems and specially adapted insulation. The underframes of the trains have been designed to minimise freezing.

Peter Jenelten, Executive Vice President Marketing & Sales Stadler, has been available for questions at Stockholm Central Station. "The train is well-proven for Nordic conditions, with an excellent track record from Norway, Finland and other countries with long winters. The train has been further adapted for Sweden in collaboration with Swedish designers, and have high standards of functionality, comfort and durability," Peter Jenelten said.

Mälartågen strengthens Stadler's role in Sweden as a reliable supplier of rolling stock for speeds of up to 250 km/h. Stadler, which both manufactures and services trains, has grown rapidly in the Nordic countries in a short period of time. The company sees continued high growth potential that it is now preparing to meet. By 2020, more than 300 Stadler-produced railway vehicles are expected to run on Nordic railway lines, which is almost 400 percent growth from 2013. In Sweden Stadler runs two workshops with 190 employees in Hagalund and Tillberga, where in the latter the SJ X2000 X31 fleet is currently being technically refurbished in cooperation with ABB. Since 2017, Stadler is also a member of Swedtrain.

Stadler DOSTO Mälartågen

The DOSTO adaptation for the Mälardalen lines and Transio, in addition to comfort levels and interior design, makes the train more flexible and able to cope with the Swedish load profile. Further, the extensive adjustments for winter durability minimize damage from collisions with wildlife.

The new train carriages will be designed using MÅLAB's future Mälartågen brand, and have a length of around 105 meters with a top speed of 200 km/h. The interior is designed for commuter and daily travel with travel times around one to two hours, with comfortable adjustable chairs with work tables, power outlets, WIFI and more. The passenger flexibility is superb with folding chairs and possibility of carrying larger luggage and bicycles, and 357 fixed seats per train including folding chairs. There are three toilets, one of which is adapted for passengers with special needs. The driver's cabin is European (EUROCAB) with cab doors.





Bombardier's Chinese Joint Venture Wins Contract to Provide an INNOVIA Automated People Mover System to Shenzhen Airport

New generation of reliable and ecofriendly BOMBARDIER INNOVIA APMs to help Shenzhen airport meet growing passenger numbers

Rail technology leader Bombardier Transportation has announced that its Chinese joint venture, CRRC Puzhen Bombardier Transportation Systems Limited (PBTS), has been awarded a contract from Shenzhen Airport Co. Ltd to provide a BOMBARDIER INNOVIA automated people mover (APM) 300 system to Shenzhen Airport in China. The PBTS joint venture will deliver an Integrated System Package,



including 18 cars, for a 2.6 km APM line connecting an airside satellite to Shenzhen Airport's existing Terminal 3. The total contract is valued at approximately 453 million CNY (\$70 million US, 61 million euro) with the APM system scheduled to enter service in 2020.

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Bombardier owns 50% of the shares in PBTS, which is consolidated by Bombardier Transportation's partner CRRC Nanjing Puzhen Co., Limited.

Jianwei Zhang, President, Bombardier China, said, "The INNOVIA APM 300 system is one of our leading airport and urban transportation solutions. There are already more than one hundred airports in China and we are confident that, with our cutting-edge technology, strong reliability, availability and punctuality, combined with our sharp focus on passenger safety and comfort, our APM system is the ideal passenger mobility solution for China's fast-growing airports." Since opening in 2013, Shenzhen airport's Terminal 3 has seen rapid passenger growth, surpassing 45 million passengers by the end of 2017, and is estimated to be moving up to 82 million passengers by 2025. To accommodate this rising demand, Shenzhen has chosen the INNOVIA APM 300, an innovative APM system representing the very latest in driverless solution technology. Incorporating Bombardier's more than 40 years of experience in automated transit operations across some of the world's busiest airports and urban environments, the INNOVIA APM offers increased passenger capacity, greater speeds and an aluminium carbody that will continue to meet the ever-increasing industry standards for safety and sustainability. Bombardier has already supplied APM systems to Beijing Capital International Airport, Shanghai Metro Line 8 and Guangzhou Zhujiangxincheng and is also currently delivering an INNOVIA APM 300 system for Hong Kong Airport. With this latest contract, Bombardier's APM technology will be in service in China's five largest urban centers.

Bombardier Transportation in China is the full solution provider across the entire value chain. From vehicles and propulsion to services and design, Bombardier Transportation in China has six joint ventures, seven wholly foreign-owned enterprises, and more than 7,000 employees. Together, the joint ventures have delivered more than 3,500 high speed railway passenger cars, 580 electric locomotives and over 2,000 metro cars to China's growing urban mass transit markets. Bombardier also provides propulsion equipment to third party metro car builders for use in 24 Chinese cities.



Alstom to supply national on-board train control system in Norway

Alstom has been awarded a contract by Bane NOR, the Norwegian railway authority, to equip the entire Norwegian railway fleet with ERTMS on-board train control solution and to maintain the system for up to 25 years. The installation of the equipment aboard the rolling stock will be completed by 2026.

As part of the country's national ERTMS (European Rail Traffic Management System) roll-out, the new on-board system will contribute to making the Norwegian railway network more efficient and reliable, reducing delays for passengers and freight services, while guaranteeing the highest levels of safety.

The awarded contract consists of frame contracts for 14 different railway vehicle owners, negotiated by Bane NOR on behalf of the participating companies, to cover the serial installation of the on-board solution on 467 trains of 55 different types.

"We are very pleased to have been awarded this contract. Alstom will supply a reliable and durable on-board signalling system, providing Norway with a punctual, safe, modern and larger capacity rail system. The proposed solution will capture the benefits of the Norwegian government's investment programme for passengers, local stakeholders and the diverse communities the railway serves," said Rob Whyte, Managing Director of Alstom in the Nordics. "Awarding the contracts for on-board equipment on the trains is a significant and important step forward in the digitalization of Norwegian railways. We strongly believe in Alstom's ability to develop good solutions together with us for the benefit of the railways, the train

companies and the passengers," said Sverre Kjenne Executive Vice President Digitalization and Technology at Bane NOR.

The solution offered is based on Alstom's Atlas range of ERTMS solutions and features a dual system enabling the trains to run on legacy lines equipped with ATC-2 system, whilst being also able to run on lines newly equipped with the ERTMS Level 2 system. The design and software minimise the equipment in the dual system by sharing some on-board components, namely the balise antenna and the computer. Serial train fittings are due to start in 2021, and the first trains are planned to start operation on Norwegian lines in 2022. The entire Norwegian fleet is to be equipped before September 2026.

Design will be led by Alstom's ERTMS centre of excellence in Charleroi, Belgium, in close collaboration with the project office in Oslo, Norway, and the hardware development centre in Villeurbanne, France.

Alstom's Atlas is the worldwide number one in on-board ERTMS equipment, representing 70% of the on-board systems in service in ERTMS Level 2. Today, across 20 countries, trains under Atlas supervision have covered over 150 million kilometres, including Deutsche Bahn's ICE3 fleet recently equipped in Germany.



From the UK

Statfold Barn Railway

The Statfold Barn Railway is a narrow gauge railway of 2 ft (610 mm) gauge near Tamworth, Staffordshire, which also displays locomotives of other gauges including 4 ft 8½ in (1,435 mm) standard gauge, 18 in (457 mm) and 2 ft 6 in (762 mm). It is privately owned by Mr Graham Lee, former chairman of LH Group Services Ltd – which in 2005 bought what remained of the Hunslet Engine Company.

▶ On June 9th, 'Fiji', Hudswell Clarke No. 972 Of 1912 storms towards the station. *Stuart Hillis*

▶ 'SF Djatibarang No.9' Arn Jung No. 4878 of 1930 stands at Oak Tree Halt. *John Alsop*

▶ 'Harrogate' of Peckett & Sons (built for Harrogate Gas Works) is seen being prepared for its next working on June 9th. *John Alsop*



From the UK Statfold Barn Railway



‘Alpha’ Hudswell Clarke No. 1172 of 1922 heads towards Oak Tree Halt. *John Alsop*



Howard No. 2 (previously Lady Morrison) built by Hunslet, works No. 1842/1936 0-4-2ST and previously at the British Aluminium Company, Fort William, is seen at the shed. *John Alsop*

Wilbrighton Wagon Works 0-4-0VB No. 6 ‘Howard’ receives attention. *John Alsop*





